

What is claimed is:

1. A device for generating a loop or file in the embroidery frame comprising;

a fore-back driving part comprising a fore-back driving motor, a first gear driven by said motor, a second gear driven by a means coupling with said first gear, a third gear arranged in a co-axis of rotation with said second gear and moving together, a worm gear connected to said third gear and converting a rotational force to a force to move forward and backward, a first stop bar attached the lower of the rotation axis to switch a motor and cam-shaped stoppers placed within the area covered by the rotation of said first stop bar;

a left-right driving part comprising a left-right rotating motor, a fourth gear driven with said rotating motor, and a shaft having a fifth gear at one end thereof and said worm gear at the other end; and

a lead arm part connected to said shaft, and comprising a lead arm to generate a loop, a lead arm body joining said lead arm, lever stoppers to suppress the rotation of said motor; and a pair of second stop bars placed within the area covered by the rotation of said lead arm wherein said each second stop bar is formed at the left and right against each other.
2. The device according to claim 1, wherein the lead arm forms a lead arm set which have at least one it with different space each other and is connected to said lead arm body separable, and hence the size of loop is adjusted according to the space of said lead arm.
3. The device according to claim 1, further comprising a cutter to form a file and

to be positioned at the end of said lead arm.

4. The device according to any one of claim 1 to claim 3, wherein said lead arm is made from a material having lower hardness than the needle.

5. An embroidery frame comprising at least one device according to any one of claim 1 to claim 4.